

## **REMARKS**

Claims 1-33 are pending in the present application. By this amendment, Claims 24-33 are amended. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendments and following remarks.

### **I. Formal Matters:**

#### **Rejections Under 35 U.S.C. § 112**

Claims 24-33 was rejected under 35 U.S.C. § 112, second paragraph for use of the term “method.” Applicants have amended Claims 24-33 to recite a “patterned material” as claimed in Claim 23. As such, Applicants respectfully submit that this informality has been corrected and respectfully request withdrawal of this rejection.

#### **Allowable Subject Matter**

Applicants wish to thank Examiner McClendon for acknowledging the allowability of Claims 3-10 and 17 if these claims were rewritten in independent form and included the claim features of the base claim and any intervening claim. Applicants, at this time, have not amended any of Claims 3-10 and 17 as, for the reasons set forth below, Applicants believe that Claim 1, as originally claimed, is allowable over the newly cited prior art and, as such, Applicants respectfully submit that Claims 3-10 and 17 are allowable as depending from an allowed base claim.

### **II. Prior Art Rejections:**

Claims 1, 11-15, 18-23 and 31-33 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by WO 96/13434 issued to Ruuttu et al. (hereafter “Ruuttu”). This rejection is respectfully traversed.

Claim 1 is directed to, *inter alia*, a method of making a material comprising providing a heat-sensitive latent polymer material; applying a sensitizer to at least a portion of the polymer material; and exposing the polymer material having the sensitizer thereon to microwave radiation. Claim 15 is directed to, *inter alia*, a patterned material having a controlled tension comprising a heat-sensitive latent polymer material; and a sensitizer coated on at least a portion of the polymer material. Claim 23 is directed to, *inter alia*, a patterned material having a controlled tension made from a process comprising providing a heat-sensitive latent polymer material; applying a sensitizer to at least a portion of the polymer material; and exposing the polymer material having the sensitizer thereon to microwave radiation.

The examiner states that the Ruuttu teaches a method for shrinking a shrink film wherein the shrink film is a plastic. The plastic film is shrunk by exposing to microwave energy. The Examiner alleges that Ruuttu teaches the claimed invention since Ruuttu allegedly uses a component that slows for rapid or enhanced shrinkage in areas comprising the component.

It is respectfully submitted that Ruuttu fails to teach or suggest Applicants' claimed invention. Ruuttu applies a coating on a plastic shrink film to enhance shrinkage or the speed of shrinkage of the film when exposed to a stimulus. However, the coating material used in Ruuttu is not the same as Applicants' claimed coating. The coating in Ruuttu is a resistive coating. These coatings are electrically conductive. As such, the coating is shrunk as a result of electrical energy, which works due to the use of a plastic shrink wrap to which the coating is applied. However, in Applicants' claimed invention, Applicants use a latent polymer, not a plastic material. A latent polymer is not a plastic. In fact, after heating, the latent polymer is an elastomer. Ruuttu doesn't teach or suggest the use of a latent polymer as Ruuttu teaches the plastic shrink wrap. When heated, the plastic will shrink, but it remains a plastic and does not become an elastomer. However, Applicants' claimed latent polymer has a crystalline structure. Once it is heated, the crystallization is destroyed, thereby making the polymer elastomeric. As such, Applicants' claimed latent polymers become elastomers when heated, whereas Ruuttu's polymers remain as a plastic.

Additionally, Ruuttu uses an electrically conductive coating as Ruuttu desires to save money by using conventional heat and by accelerating the shrinking process of the plastic. However, as Applicants' desire is to change the latent polymer into an elastomer having controlled tensions for personal care products, Applicants' claimed sensitizers are different than the coating materials disclosed in Ruuttu. If Applicants' claimed materials were heated (as in Ruuttu), the desired aspect of a controlled tension material would not be obtained as the heat produced using the coating in Ruuttu cannot be changed in terms of the amount of heat released, regardless if a little or a lot of the coating material is used. However, Applicants' claimed coating material allows for the production of controlled tension materials as the claimed sensitizer does have a direct relationship in terms of the amount used and the amount of microwave energy used to the degree of resultant heat generated (and therefore the degree of shrinkage). As such, by using Applicants' claimed sensitizers, the degree of shrinkage can be controlled based upon the amount used and the amount of microwave energy applied. These aspects are not taught or suggest by Ruuttu. Accordingly, it is respectfully submitted that Ruuttu fails to teach or suggest Applicants' claimed invention.

For at least the reasons given above, Applicants respectfully submit that Claim 1, Claim 15 and Claim 23 are allowable over the art of record. Furthermore, since Claims 11-14, 18-22 and 31-33 recite additional claim features and depend from Claim 1, Claim 15 or Claim 23 these claims are also allowable over the art of record. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 2, 16 and 29 stand rejected under 35 U.S.C. § 103 (a) as being anticipated by Ruuttu. This rejection is respectfully traversed.

Applicants' claimed invention may be relied upon as above.

Applicants' discussion of Ruuttu may be relied upon as above.

It is respectfully submitted that Ruuttu fails to teach or suggest Applicants' claimed invention for the reasons previously given. As such, it is respectfully submitted that Ruuttu fails to teach or suggest Applicants' claimed invention.

For at least the reasons given above, Applicants respectfully submit that Claim 1, Claim 15 and Claim 23 are allowable over the art of record. Furthermore, since Claims 2, 16 and 29 recite additional claim features and depend from Claim 1, Claim 15 or Claim 23 these claims are also allowable over the art of record. Accordingly, Applicants respectfully request withdrawal of this rejection.

### **III. Conclusion:**

For at least the reasons given above, Applicants submit that Claims 1-33 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

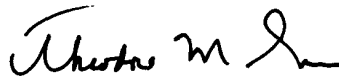
The foregoing is submitted as a full and complete Response to the Office Action mailed March 21, 2003, and early and favorable consideration of the claims is requested.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 11-0855.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**Amendments in the Claims**

In accordance with 37 C.F.R. 1.121(c), the following versions of the specification and claims as rewritten by the foregoing amendments show all changes made relative to the previous version of the specification and claims.

**In The Claims:**

Please amend Claims 24-33 as follows:

24. (Amended)        The patterned material of Claim 23, wherein the polymer material having the sensitizer thereon is placed on a web and is passed through the microwave radiation at a web speed of greater than about 300 ft/min.

25. (Amended)        The patterned material of Claim 23, wherein the microwave radiation is at a power greater than about 1.0 kW.

26. (Amended)        The patterned material of Claim 25, wherein the microwave radiation is at a power greater than about 3.0 kW.

27. (Amended)        The patterned material of Claim 26, wherein the microwave radiation is at a power greater than about 6.0 kW.

28. (Amended)        The patterned material of Claim 23, wherein the microwave radiation is at a power of about 900 W, at a frequency of about 2450 MHz, and is at a duration of about 5 seconds.

29. (Amended)        The patterned material of Claim 23, wherein the heat-sensitive latent polymer film is selected from olefinic elastomer-ethylene copolymer; polyether; polyether-polyamide copolymer; polyamide; polyester; polyurethane; polyacrylates; polyester-polyamide copolymer; polyvinylacetate; or ethylene-propylene copolymer.

30. (Amended) The patterned material of Claim 23, wherein the sensitizer is selected from homopolymers, block and random copolymers of polyether, polyethylene glycol, and polyether-polyethylene glycol; ionic polymers and copolymers; metal salts; organic solvents; or combinations thereof.

31. (Amended) The patterned material of Claim 23, wherein the sensitizer is applied to the polymer material using a coating technique that is selected from screen printing; roller coating; melt blown coating; bead coating; ultrasonic spray coating, or by directly incorporating the sensitizer into the latent polymer by blending or compounding technologies.

32. (Amended) The patterned material of Claim 23, wherein the polymer material is in the shape of a film.

33. (Amended) The patterned material of Claim 23, wherein the polymer material is in the shape of a strand.